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GENERAL REPORT 44

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INTEGRATED AND RELATED OPERATIONS

CENTRAL CAROLINA FARMERS EXCHANGE

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FARM CREDIT ADMINISTRATION

FARMER COOPERATIVE SERVICE • U. S. DEPARTMENT OF AGRICULTURE

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U. S. DEPARTMENT OF AGRICULTURE
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The Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, merchandising, product quality, costs, efficiency, and membership.

The Service publishes the results of the studies; confers and advises with officials of farmer cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

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Summary

The Central Carolina Farmers Exchange, Inc., Durham, N. C., (CCFE) is a centralized cooperative serving 13,000 farmers in north central North Carolina.

Through an active program of providing production guidance, farm supplies, and marketing outlets for its members, the association is performing a number of integrated services for patrons.

Indications are that CCFE is doing an effective job of helping farmers integrate their operations and cooperative effort. It has recognized that integration is essentially a farm enterprise development and provided the necessary resources for doing the job in those areas selected for service.

This association's aggressive program of director, employee, and member education, is helping it adjust operations to the far reaching implications of integration. It has taken steps to strengthen its financial position, to develop financial responsibility on the part of members to assume necessary risks, and to improve management, membership, and operating performance.

The association provides the following percentages of production supplies for farmers in its five-county area: Feed, 50 to 60 percent; seed, 40 percent; fertilizer, 20 percent; insecticides, 40 percent; chicks, 70 percent; and general supplies, 5 to 8 percent.

It markets the following percentages of farm products: Broilers and poultry,

50 percent; eggs, 25 percent; livestock, 50 percent; grain, 75 percent; and seed, 50 to 60 percent.

Principal integrating developments include:

1. A feed mill to assure low-cost feed and at the same time provide a market for local grains and concentrates. Dependable medicines and related production supplies and equipment also provided.

2. A hatchery to produce the right kind of chicks, essential to uniformity and high quality of both broilers and market eggs.

3. Farm supervision to promote quality and economy in production.

4. Credit to assist farmers in expanding their enterprises.

5. Many production and marketing risks assumed and in the case of broilers virtually guaranteed returns to producers.

6. A poultry processing plant erected to increase the marketability of the poultry.

7. A livestock auction with slaughtering facilities operated in conjunction with it and meat processing services provided in connection with a frozen food locker plant.

Further opportunities for integration may exist in the following production supply areas: (1) Manufacturing fertilizer, (2) handling petroleum products and automotive accessories, and (3) a more complete line of general farm supplies with cooperatives providing many of these supplies.

Because of established tobacco auction markets already in the area, there is little likelihood that CCFE will attempt to integrate further in this direction.

As to dairy products, the association provides both production assistance and a large proportion of the feed and other supplies needed by members. The effective operation of a well established

milk marketing cooperative, Long Meadow Farms Cooperative, Inc., Durham, N. C., means, however, that CCFE will not attempt further integration of services for milk producers.

It also will want to keep abreast of any developments with regard to marketing and processing of such specialty crops as may develop in its area.

Integrated and Related Operations of the Central Carolina Farmers Exchange

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Functions that farmer cooperatives perform -- be they marketing, purchasing, or service associations -- represent efforts by members to further integrate their farm operations. When a cooperative processes or manufactures, when it takes farm products closer to the point of consumption, or when it moves back toward the source of supply in obtaining raw materials for farm supplies, it extends and integrates the business operations of its patrons.

More recently, integration has further emphasized combining approved production practices with marketing the products farmers grow and with obtaining the supplies and services modern farming requires. When his cooperative becomes a vehicle for integrating his operations, the farmer maintains or increases control over his products as they move through marketing channels. To do so, however, necessitates that he provide more capital, assume various kinds of risks, often secure more competent management, and adjust

operations to meet the many changes confronting agriculture.

Because of increased emphasis on integration of farm operations, Farmer Cooperative Service is interested in obtaining information about impacts of such integration on cooperatives. The Farm Credit Administration is interested in the credit needs and related problems confronting cooperatives and their members that are growing out of further integration of farm operations. Therefore, these agencies have jointly undertaken studies of the effects of integration on cooperatives.

The first association selected for study and the subject of this report is the Central Carolina Farmers Exchange, Durham, N. C. (CCFE or the Exchange). This association reported performing a number of different services for its farmer members. These are divided into three broad classes -- marketing farm products, providing farm supplies, and furnishing farm business services.

This association has a good record of performance in dealing with some of the problems confronting cooperatives in developing effective integrated procedures. In response to specific economic needs of farmers in the area, it expanded operations from an early beginning as a typical farm supply cooperative to include a wide variety of marketing and related business services.

Management (the manager and his staff as well as directors), after carefully

Note: Appreciation is expressed to C. W. Tilson, General Manager of the Central Carolina Farmers Exchange, Inc., and to department heads of that association for their wholehearted cooperation in providing information and data on the operations of that association.



Home office and feed mixing plant of the Central Carolina Farmers Exchange.

appraising the agriculture in the area served, concluded that more emphasis should be put on building a diversified agriculture. The cooperative, therefore, decided that new enterprises and a larger volume of business were the logical answer. Thus the association adopted the policy of promoting poultry, dairy, livestock, and grain production and marketing among its members.

This report includes a brief description of kinds of integration and covers the agricultural environment and highlights in the operations of CCFE. It considers the nature and extent of integrated farm enterprises, contractual arrangements used, and appraises the future possibilities for and impacts of integration from the standpoint of both members and the cooperative.

Findings, besides relating specifically to the operations of the Exchange, should also be useful to the large number of cooperatives that provide several integrated services for members or contemplate doing so.

Kinds of Integration

Economists generally recognize two kinds of integration. One is vertical and the other is horizontal. The two are quite closely interrelated and when one gains headway, usually there is evidence of the other. Irrespective of the type of integration taking place, the basic motivating force back of it is to add to the profits of the individual or the firm doing the integrating. For the farmer to realize for himself most of the benefits of integration, it is desirable for him to maintain control over a wider range of operations. This is possible only when as an individual or through his cooperative, he can make the business decisions required in operating additional units or

in performing additional services and activities.

Only when a sufficient number of local operations are joined together can cooperatives -- marketing, farm supply, or service -- take on many additional functions. That is why integration is essentially a two-way development -- one that involves bringing under one management and maintaining control of many similar types of operations and then continuing these operations closer to the point of consumption by marketing cooperatives and further back toward the source of raw materials by farm supply cooperatives.

Vertical Integration

Vertical integration means taking one or more products through more than one stage in production and marketing or both. The farmer who sets up a roadside retail market or who delivers milk as a producer-distributor has achieved 100 percent integration in his marketing operations. He has full control of all his production and buying activities. The cooperative that processes the farmer's products and through wholesaling or retailing operations moves them closer to the point of consumption is integrating its operations vertically.

Whenever the farmer or his cooperative performs more than one of such market functions as assembling, transporting, storing, bearing risks, financing, standardizing, processing or manufacturing, wholesaling, and retailing, then vertical integration takes place. Likewise, the farm supply cooperative is integrating vertically when it moves back toward the source of raw materials to manufacture feed, refine petroleum products, or mix fertilizer.

Much of the increased interest in vertical integration comes about because recently it has come to include a number of on-the-farm production operations as well as marketing and buying activities. Credit is provided, risks are assumed, and decisions as to management practices are controlled by the firm doing the integrating.

This is where the term "contract farming" has come in common usage. While the farmer feels a degree of security in having others provide the various services that go with contract farming, he finds that he has less to say about how his farming activities are to be carried on. He becomes more dependent on other forces in the economy and often feels a degree of frustration in dealing with them. He sometimes does not understand the use he can make of his cooperative in helping him cope with this development.

Horizontal Integration

Horizontal integration, as the term implies, means adding more operations of the same type. In the case of a



Modern hatchery facilities of the Exchange are a part of the facilities needed to help farmers integrate their broiler and commercial egg operations. The Exchange has a weekly capacity of 175,000 chicks.

farmer, it may be operating two or three farms instead of one. To the local cooperative it is adding more branches to gin cotton, for example, or to distribute farm supplies. Also, when a centralized regional cooperative such as CCFE adds more branch stores that perform

substantially the same functions, it is in effect integrating horizontally. In each case these additional units, be they farms or branches of local or centralized cooperatives, operate in substantially the same way that the original one did.

CCFE's Agricultural Environment and Operations

Consideration of the agricultural environment in which CCFE operates and highlights in the services performed by this association will provide useful background information as to its activities.

Agricultural Environment

To understand the integrated operations of CCFE, it will help to briefly consider important aspects of the agriculture in the area in which it operates. When desirable, comparisons have been made with data for the entire State of North Carolina.

CCFE operates in a five-county area in the north central part of the State -- Chatham, Durham, Granville, Orange, and Person counties (figure 1).

Data in table 1 show that number of farms in the territory served by CCFE, contrary to trends in the United States, has increased somewhat (4 percent) since 1940. Correspondingly, the size of farms showed an 8 percent decline during this period.

During this same period there was a 4 percent decrease in the number of farms in the State. Average acreage per farm remained relatively constant. For the five-county area served by CCFE

FIGURE 1

Operating area of the Central Carolina Farmers Exchange, 1958

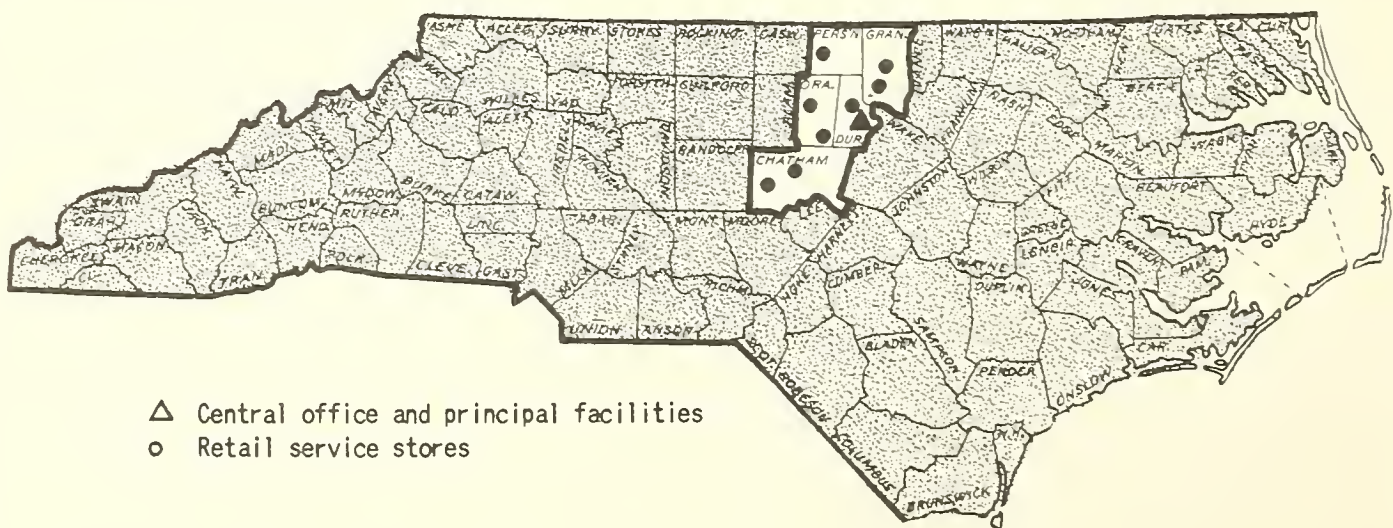


Table 1. - Number of farms, average acres per farm, and value of lands and buildings, State and Central Carolina Farmers Exchange area, 5-year intervals, 1940-1954

Years	Number of farms		Average acres per farm		Value of lands and buildings per farm	
	CCFE area	State	CCFE area	State	CCFE area	State
1954	13,574	267,906	79	68	6,980	8,059
1950	12,979	288,508	85	67	6,016	6,490
1945	12,109	287,412	88	65	3,262	3,490
1940	13,079	278,276	86	68	2,358	2,647

the value of lands and buildings per farm increased about threefold. The same proportionate increase occurred in the State.

In 1954, an estimated 69 percent of gross cash farm income (less forest products) in the CCFE area was from crops and 31 percent from livestock and livestock products according to census data. In 1940 these percentages were 84 percent and 16 percent, respectively. While the proportion of income from livestock and livestock products increased considerably in the CCFE area, it increased relatively less in the State during the same period (from 13.1 percent to 17.6 percent of the total).¹

¹Because of variation in sources of data, these comparisons as well as others relating to the operations of CCFE are not always comparable.

In 1954, tobacco accounted for about 60 percent of gross cash farm income both in CCFE territory and in the State as a whole. Chickens and grain were about equally important to farmers in the CCFE area and together accounted for about 25 percent of their income.

Some indications of importance of the principal crops as sources of gross cash farm income in the CCFE area and in the State are indicated by data in table 2 which was developed from North Carolina agricultural statistics. Similar information as to the value of livestock and livestock products for selected years is given in table 3.

While data in these tables indicate that tobacco predominates as a source of gross cash farm income in the territory served by the CCFE, recent increases in income from poultry, dairy,

Table 2. - Gross cash farm income from important crops, State and Central Carolina Farmers Exchange area, 1949 and 1954

Item	1954				1949			
	CCFE area		State		CCFE area		State	
	Percent	(\$1,000)	Percent	(\$1,000)	Percent	(\$1,000)	Percent	(\$1,000)
Tobacco	79.1	24,616	68.1	495,683	71.5	20,366	57.5	359,435
Cotton	0.4	127	8.7	63,312	1.0	283	10.9	67,980
Irish potatoes	0.5	151	1.1	8,093	0.5	135	1.8	10,971
Sweet potatoes	0.5	165	1.6	11,770	1.2	340	2.2	14,091
Grain	13.6	4,229	15.5	112,505	17.9	5,093	21.3	132,920
Hay	5.9	1,843	5.0	36,312	7.9	2,267	6.3	39,582
Total	100.0	31,131	100.0	727,675	100.0	28,484	100.0	624,979

Table 3. - Gross cash farm income from livestock and livestock products, State and Central Carolina Farmers Exchange area, 1949 and 1954

Item	1954				1949			
	CCFE area		State		CCFE area		State	
	Percent	(\$1,000)	Percent	(\$1,000)	Percent	(\$1,000)	Percent	(\$1,000)
Chickens	62.2	4,917	29.4	25,602	56.0	2,630	23.4	14,384
Eggs	19.3	1,523	20.3	17,680	20.8	975	19.9	12,210
Cattle and calves	11.3	894	19.5	17,039	15.1	711	26.0	15,938
Hogs and pigs	6.8	538	29.9	26,081	7.2	338	28.5	17,521
Sheep and lambs	0.3	21	0.5	423	0.1	7	0.6	334
Horses and mules	0.1	10	0.4	322	0.8	38	1.6	1,002
Total	100.0	7,903	100.0	87,147	100.0	4,699	100.0	61,389

and livestock enterprises are pronounced. The relative increase in farm income from 1940 to 1954 for selected items in the area served by the CCFE and in the State is shown by the accompanying tabulation.

Data in table 4 give numbers of head of livestock on farms for selected years, show trends in the State and in CCFE area.

Highlights in Operations

CCFE was organized in 1930 to purchase and process farm supplies in

Item	Percentage increase in income from 1940 to 1954	
	CCFE area Percent	State Percent
All farm products	288	268
All crops	218	249
All livestock and livestock products	645	395
Poultry and poultry products	775	504
Livestock and livestock products other than dairy and poultry	607	426
Dairy products	458	277

Table 4. - Number of head of important classes of livestock, State and Central Carolina Farmers Exchange area, 1940, 1950, and 1954

Item	1954		1950		1940	
	CCFE area	State	CCFE area	State	CCFE area	State
	(1,000)					
All cattle	55	948	37	698	26	540
Milk cows	23	350	19	333	18	310
Hogs	43	1,419	35	1,231	23	709
Sheep	1	46	-	50	-	46
Horses	15	237	21	352	20	374
Chickens	631	10,680	489	9,002	379	7,315

order to lower production cost for farmers and to promote production and develop markets for poultry, eggs, livestock, milk and grain and seed in order to increase farm income. Some 400 farmers raised about \$2,400 of capital. This was supplemented by a \$10,000 line of credit extended by a farsighted Durham, N. C., bank. Operations started with the area served from the Durham Service Store.

Since organization, total assets have reached \$3.9 million; net worth provided by farmers has increased to \$3 million;

and yearly volume of business -- marketing and purchasing -- stood at nearly \$18 million in 1957 (for details see table 5). In addition a number of farm services such as livestock slaughtering and meat processing, trucking, and bulk delivery of feed also are provided farmers. Membership in 1957 was reported at 13,000 -- a figure that included a large proportion of all farmers in the five-county area served by CCFE.

CCFE has built service stores at eight trade centers in the five-county area served and provided marketing

Table 5. - *Assets, net worth, total volume, and net savings for Central Carolina Farmers Exchange, 1931-1957*

Year	Assets	Net worth	Volume (marketing and farm supplies)	Net savings
1957	\$3,914,332	\$2,858,793	\$17,731,968	\$243,022
1956	3,914,380	2,787,762	18,164,825	367,819
1955	3,384,610	2,622,912	16,217,759	394,333
1954	2,611,779	2,329,034	13,916,228	371,174
1953	2,304,009	2,088,636	12,822,608	336,309
1952	2,156,233	1,892,044	12,171,881	313,587
1951	1,895,714	1,650,615	10,325,601	320,579
1950	1,492,004	1,245,511	7,577,794	209,376
1949	1,341,045	1,137,310	7,162,328	226,708
1948	1,326,994	1,024,899	6,236,431	228,974
1947	965,612	717,074	4,319,383	160,106
1946	795,342	603,422	3,793,866	162,156
1945	509,930	477,721	3,191,767	137,816
1944	485,110	360,011	3,534,664	111,189
1943	372,963	277,070	2,209,959	103,448
1942	230,323	191,153	1,468,379	63,298
1941	157,019	132,721	(1)	38,217
1940	113,163	98,404	(1)	27,797
1939	75,339	73,293	(1)	17,468
1938	62,621	61,420	(1)	16,361
1937	56,937	49,285	(1)	12,330
1936	46,771	35,423	(1)	11,654
1935	36,994	27,860	(1)	5,988
1934	24,866	22,273	(1)	2,804
1933	19,940	17,820	(1)	5,431
1932	20,669	17,225	(1)	2,598
1931	12,417	7,674	(1)	5,591

¹Not available.



Bulk distribution of feed. A recently added service of Central Carolina Farmers Exchange.

outlets for broilers, eggs (commercial and hatching), livestock, and grain and seed. In addition, it has expanded and developed production supply services. These include manufacturing feed, hatching chicks, distributing fertilizer, insecticides, and seeds, and adding general farm supplies and small appliances (see table 6 for data as to trends in marketing and in providing production supplies).

The accompanying tabulation shows the proportion of various farm products marketed and farm supplies provided members by CCFE in 1957 and the year when these various services were started.

To round out its service for farmers, the association maintains a grain grinding and feed mixing service at six of the

<u>Item</u>	<u>Proportion of total for five- county area Percent</u>	<u>Year CCFE began service</u>
<u>Marketing</u>		
Broilers and poultry	50	1931
Eggs	25	1950
Livestock	50	1940
Grain	75	
Seed	50-60	
<u>Farm supplies</u>		
Feed	50-60	1931
Seed	40	1931
Fertilizer	20	1931
Insecticides	40	1931
Chicks	70	1940
General supplies ¹	5-8	1931

¹While some general supplies have been handled ever since the beginning of CCFE, new items have been added as circumstances warranted.

Table 6. - Marketing and farm supply operations of Central Carolina Farmers Exchange, 1944-1957

Marketing farm products

Year	Grain and seed	Poultry	Commercial eggs	Hatching eggs	Livestock	Total
1957	\$839,306	\$5,202,631	\$575,094	\$743,445	\$1,430,692	\$8,791,168
1956	817,074	5,843,142	296,412	732,737	1,242,721	8,932,086
1955	612,747	5,134,721	231,964	527,747	1,270,262	7,777,441
1954	464,965	4,053,423	164,941	326,061	1,221,266	6,230,656
1953	520,458	3,661,812	172,361	282,388	1,020,631	5,657,650
1952	628,327	3,122,243	25,123	269,364	1,351,157	5,396,214
1951	588,147	2,591,380	36,347	199,002	1,018,910	4,433,786
1950	437,460	1,899,476	28,596	176,665	479,222	3,021,419
1949	469,290	1,693,438	56,083	129,884	493,895	2,842,590
1948	437,263	1,154,464	88,177	96,833	375,929	2,152,666
1947	(1)	853,222	94,459	78,882	³ 51,796	1,078,359
1946	(1)	964,511	88,925	69,279	³ 81,790	1,204,505
1945	(1)	730,485	² 169,277	43,028	³ 82,030	1,024,820
1944	(1)	869,631	² 330,308	32,999	³ 31,589	1,264,527

Purchasing farm supplies

Year	Feed	Seed	Fertilizer	Chicks	General farm supplies	Total
1957	\$5,939,014	\$323,649	\$533,967	\$939,119	\$1,205,051	\$8,940,800
1956	6,090,838	328,330	541,839	1,212,622	1,059,110	9,232,739
1955	5,879,345	377,793	553,037	814,696	815,447	8,440,318
1954	5,267,751	396,862	543,439	808,779	668,741	7,685,572
1953	4,843,283	402,631	553,872	709,124	656,048	7,164,958
1952	4,486,177	450,175	601,049	573,112	665,154	6,775,667
1951	3,815,615	433,264	558,124	450,417	634,395	5,891,815
1950	3,001,732	333,455	443,143	295,434	482,611	4,556,375
1949	2,795,513	340,268	418,669	285,218	480,070	4,319,738
1948	2,842,488	300,148	324,174	222,029	394,926	4,083,765
1947	2,326,241	236,751	270,097	133,496	274,439	3,241,024
1946	1,939,451	166,880	182,930	127,187	172,913	2,589,361
1945	1,591,463	159,651	186,494	125,236	104,103	2,166,947
1944	1,751,410	174,222	165,389	88,588	90,528	2,270,137

¹Not available.

²Wartime handling of eggs to nearby military base - includes eggs other than those produced and marketed by producers in CCFE operating area.

³Auction sales not available.

eight service stores; carries on field inspection of seeds; provides seed testing and cleaning services; selects, tests, and supervises hatchery flocks; finances broilers, layers, and recently, to a limited extent, hog feeding operations;

operates a frozen food locker service that furnishes meat processing and selling services; provides trucking services, and furnishes planning assistance and supervision to members on many aspects of their farm operations.

Integrated Farm Enterprises

As far as farmers are concerned, integration is by specific farm enterprises. The degree of integration then varies with each enterprise and a cooperative that serves farmers who carry on diversified activities finds that it must adjust its operations accordingly. This part of the report now examines important farm enterprises in the area served by CCFE to determine the nature and amount of integration and the part this cooperative has played in furthering these processes.

Broilers

A greater degree of integration characterizes the broiler enterprise than any



Good broilers come from improved strains of poultry. Flock owner and hatchery manager discuss production problems.

other farm enterprise in the area served by CCFE, and involves both production and marketing services.

Production

As far as production is concerned, the association estimated that in 1957 its approximately 350 broiler producers accounted for about 50 percent of the broilers marketed in its operating area. CCFE has worked out a contract program with most of these producers. Terms of this contract provide that producers obtain all chicks through its hatchery and all feeds through its feed mill. Moreover, through an active field service program, fieldmen of the association work with growers at least once a week on production problems. They also coordinate production with processing and marketing requirements. These activities are now discussed in more detail.

1. Credit and contract provisions. - In the early years of operation, CCFE adopted the policy of having farmer members pay cash when buying feed, chicks, and production supplies. The growers likewise received cash when the broilers were marketed through the processing plant of the Exchange. In 1937, however, the demand from growers to purchase feed and chicks on credit became so insistent that the directors reluctantly agreed to try a credit plan. They began with about a dozen carefully selected growers. Those who were furnished feed and chicks on credit were



Modern poultry dressing plant at Durham, N. C., helps round out the services needed to enable members to integrate their broiler operations.

charged \$2 more a ton for feed and \$1 more per 100 chicks than those who paid cash. This extra charge covered risks, financing costs, and the additional supervision made necessary by the credit plan.

This plan was developed further over a period of about 15 years. In 1952 and 1953, however, other feed manufacturers and their dealers began to offer farmers contracts under which they paid growers 5 cents a head or \$50 a thousand to produce broilers. The feed dealer furnished the feed, chicks, and medicine, and marketed the birds. In effect, they guaranteed the grower against loss in case the returns did not cover the cost.

In meeting this competition, the directors of the Exchange in 1953 offered a plan under which the loss would be shared by the grower and the Exchange on a 50-50 basis. In 1956, when broiler prices were unfavorable for almost the entire year, the 50-50 plan of sharing losses proved unattractive to many Exchange members. Some 20 to 25 percent of them shifted to other feed companies that were offering contracts guaranteeing the grower so much per 1,000 birds and absorbing any losses.

In order to maintain volume, the Exchange modified its agreements in 1956. The half and half loss type of plan was replaced with an agreement under which the association guaranteed to the grower a payment that increased as feed was converted more efficiently into meat.

The following schedule of these incentive payments was in effect at the time of the study:

<u>Cost of production per pound</u>	<u>Payment per head</u>	<u>Payment per pound of meat sold</u>
20¢ and over	4¢	-
19 to 19.99	5	1.5¢
18 to 18.99	6	1.8
17 to 17.99	7	2.1
16 to 16.99	8	2.5

In determining the cost of production, for purposes of this agreement, the total value of all baby chicks, feed, medicine, and sanitation supplies furnished by CCFE is divided by the total number of pounds of broilers sold. CCFE pays the producer either the indicated payment per head or payment per pound, whichever is greater.

Growers financed pay \$8 to \$10 more a ton for feed and \$3 more per 100 chicks than those who buy on a cash basis. The association thus seeks to recover enough from the price of the feed, chicks, and supplies and the sale of the broilers to cover the actual cost of these items sold to the grower plus the incentive payment. At all times the association has encouraged producers to pay cash for feed and thus qualify for volume discounts.

Gains to the association under this contract are carried to a reserve fund. Losses to the association are charged to this fund. During the fiscal year ended June 30, 1957, gains exceeded losses by \$2,268. If losses should be so severe as to wipe out the reserve fund during

an accounting period, these losses will be absorbed by the association and will have the net effect of reducing patronage refunds.

The problem of CCFE's management under this arrangement is to set prices of feed and chicks and incentive payments so that (1) these returns together with general patronage refunds will be attractive to growers in comparison with contracts offered by competitors, and (2) the reserve fund is kept on a relatively even keel, with a minimum of long-range average losses to be absorbed by the total operations.

All financed growers are carefully selected. The main consideration in approving a grower for credit is whether he is honest and dependable and has the



Broilers passing over automatic scales at the poultry dressing plant.

facilities and other resources needed for efficient production and whether he has a good record as a producer. Growers are required to sign an agreement to market their poultry through the Exchange, unless released by the agreement. In order to be assured of high quality and uniformity, growers must obtain chicks from the Exchange hatchery and have the whole operation carefully supervised during the entire period of production. The fieldmen of CCFE decide when the broilers should be marketed.

The Exchange has been financing about 300 growers, or about three-fourths of all those marketing poultry through the Exchange. Total credit required amounts to approximately \$600 per thousand broilers. On the average each producer grows four batches a year. Most of those financed are under the incentive-type contract described. About one-fourth pay cash for their feed and chicks and in that way carry the risks themselves, absorb losses if and when they occur, but keep all net receipts from sales.

2. Chick Hatchery. - The Exchange installed its first hatchery facilities in 1940. It based the decision to put in this service on the necessity for controlling chick quality for broiler production. It later broadened operations to include hatching chicks for laying flocks. The Exchange now provides all the chicks required by growers it finances and about 70 percent of the total output of hatchery chicks in the five-county area. The trend of operations during recent years is indicated by the following wholesale volume and savings from this operation:

<u>Year ended June 30</u>	<u>Volume</u>	<u>Savings</u>
1957	\$1,072,400	\$10,400
1956	1,127,000	15,300
1955	779,500	34,700
1954	709,900	15,400

The physical output of chicks during 1956 and 1957 was as follows:

<u>Type of chicks</u>	<u>1957 Number</u>	<u>1956 Number</u>
CCFE broilers	6,472,000	7,469,000
Other broilers	808,000	645,000
CCFE commercial laying flocks	256,000	145,000
Total	7,536,000	8,259,000

Hatching eggs for broiler chicks are obtained from about 130 growers, about one-third of them financed by the Exchange. These eggs accounted for about 98 percent of broilers marketed by CCFE. One producer, under contract, furnished substantially all the eggs required for chicks for commercial laying flocks. Hens from these chicks provide about 85 percent of the eggs the association marketed.

The producers of hatching eggs who are financed by the Exchange "carry themselves" for 8 weeks -- that is, they pay cash for the chicks and for the feed required for this time. The Exchange finances feed, medication and other supplies required after the first 8 weeks. When the pullets are about 6 months of age they begin producing hatching eggs. As egg production got under way, the Exchange applies 75 percent or more of the proceeds to repayment of the credit. Financed growers pay 6 percent interest on outstanding balances and 5 cents a hundred pounds more for feed than those on a strictly cash basis. The association does not guarantee a specific price return for hatching eggs but it does provide for a premium price over commercial production that ranged from 30 to 40 cents a dozen.

The fieldman closely supervises the producers of hatching eggs. Besides regular consultations, he is on call at all times as problems arise. These

problems are mainly disease or sanitation difficulties.

The hatchery is now operating at capacity and hatching 175,000 to 180,000 chicks weekly. If larger output is needed, additional incubators will be necessary.

3. Feed Manufacturing. - CCFE has been in the feed business since its beginning. In 1934 it installed milling facilities at Durham and has increased output more or less continuously in response to the growing needs of members. Over the years the Exchange has closely coordinated operation with member service and marketing programs. The feed mill output was about 57,100 tons in 1957. A second feed mill of smaller capacity was built in Siler City in 1955 to do supplemental mixing and distribute bulk feed. It had an output in 1957 of 12,836 tons. The Exchange manufactures approximately 99 percent of the feed it distributes.

In 1956 CCFE provided an all time high of 71,000 tons of feed to branch service stores for retail distribution. This represents full capacity for current operations. Further expansion is planned with bulk feed and a night shift. (For a discussion of the relationships of the feed manufacturing program and the grain enterprise of CCFE members, see pp. 19 and 20.)

Trends for the past 4 years, showing tons handled and wholesale value, were as follows:

<u>Year ended June 30</u>	<u>Tons handled</u>	<u>Value</u>
1957	69,909	\$6,350,678
1956	71,536	6,475,979
1955	57,008	5,444,801
1954	53,822	4,870,603

Savings, total and per ton, for this same period were reported on wholesale operations as shown in the accompanying tabulation.

<u>Year ended June 30</u>	<u>Amount</u>	<u>Per ton</u>
1957	\$176,519	\$2.52
1956	141,886	1.98
1955	115,308	2.02
1954	86,143	1.60

The association reports that nearly all members obtain some feed through it. In 1957 it handled an estimated 60 percent of all feed used in the five-county area served. The proportion ranged from about one-fourth of the hog feed to one-half of the dairy feed and about two-thirds of the broiler and laying hen feed.

To assure a high quality product, the Exchange develops feed formulas based on the research findings of the North Carolina State College of Agriculture and other research agencies. These feeds go to dairymen, poultry, egg, and hog producers in accordance with the operating program established by CCFE.

The importance of feed manufacturing in the overall operations of the association is indicated by the savings reported. Over the years these savings have accounted for half or more of the total realized by patrons. Since it is general practice for the association to market broilers and other farm products on a cost basis, the extent to which members realize savings or losses on marketing services is minor when compared to the overall savings of the association.

Marketing

CCFE began poultry marketing in 1931 and in 1934 constructed the first building specifically planned for a dressing plant in North Carolina. It expanded the facilities as required but in 1955 built a completely new and modern plant costing \$500,000. This included the first automatic ice making and handling equipment to be installed

in a poultry plant in the United States. This new processing plant has a capacity of 5,000 birds an hour.

As may be seen in the accompanying tabulation on the wholesale operations of the association, the sharpest expansion in poultry volume has occurred after 1954.

<u>Year ended</u> <u>June 30</u>	<u>Poultry</u> <u>bought and</u> <u>processed</u> <i>Million lbs.</i>	<u>Sales</u>
1957	18.8	\$4,162,500
1956	16.6	4,106,100
1955	11.4	3,231,700
1954	8.8	2,516,500

The association coordinates its processing operations with a sales program that has developed market outlets in northeastern cities of the United States. It also maintains a fleet of refrigerated trucks for moving processed poultry to distant markets.

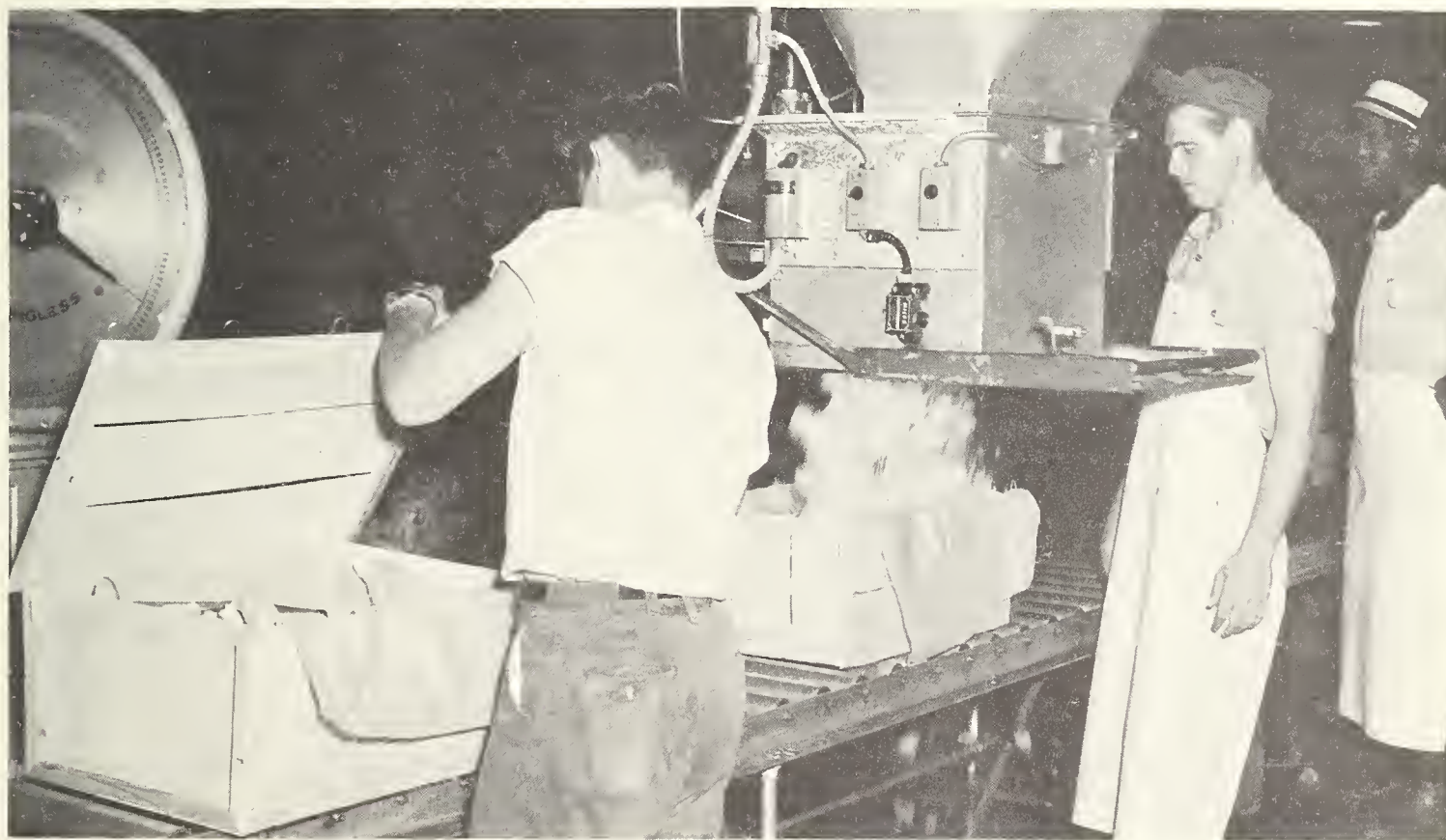
The number of broiler growers marketing poultry regularly through CCFE increased from about 250 in 1954 to 350 in 1957. The Exchange markets all broilers financed by it, which in 1957 amounted to nearly one-half of all broilers produced in the five-county area.

Commercial Eggs

This report considers the commercial egg enterprise from the standpoint of the contributions of CCFE to both production and marketing services.

Production

Reference already has been made to the place of the feed mill and the hatchery in the integration of the commercial egg enterprises of members of the Exchange. Egg producers also obtain substantially all of their poultry equipment and supplies through their association. As with



Weighing and icing operations in the poultry dressing plant.

broiler production, CCFE recognized that supervision is essential not only as a protection in the case of those financed but also as a prime requirement for maintaining uniform quality of eggs. The cooperative's fieldmen consult with those members about twice a month and other egg producers monthly.

Members soon demanded financing as their production operations got under way and the cooperative worked out a contract arrangement. In 1957, CCFE financed 18 producers, representing total credit of about \$50,000. Flock sizes financed varied from 300 to about 5,000 birds.

Under the financing arrangement, CCFE furnishes the grower with chicks, feed, medication and supervision until egg production begins when the pullets are about 5 months of age. By that time the total cost financed will approximate \$1.75 a bird. When production begins, the association applies 85 percent of the egg proceeds on the debt. This will generally retire the obligation in about 8 months or when the hen is about 14 months of age. CCFE charges 6 percent on outstanding balances plus 5 cents more per hundred pounds of feed than the growers that are on a strictly cash basis pay.

Under the written agreement, financed growers must market their eggs through the Exchange unless other arrangements are mutually agreed on. There is no written agreement with other egg producers. In earlier years an effort was made to use a written agreement but it was not found practicable. There is only an oral understanding and whether or not members continue to market their eggs through the Exchange is purely a voluntary arrangement. In actual practice this works out satisfactorily since there has been only a minor loss of patronage.

So far, CCFE has not developed an incentive payment plan for the egg producers.

Marketing

Although CCFE has marketed eggs for members for a considerable period of time, the real growth occurred during the past 3 years as shown by the following data:

<u>Year ended</u> <u>June 30</u>	<u>Eggs</u> <u>marketed</u> <u>Dozen</u>	<u>Sales</u>
1957	1,507,800	\$575,100
1956	671,800	292,400
1955	573,500	232,000
1954	374,700	164,900

The growth in the volume of business resulted both from increases in the number of growers marketing eggs and enlargement of laying flocks. In 1954 the CCFE was marketing eggs regularly for 25 growers and irregularly for 50 others. By 1957 these had been increased to 100 regular and 150 part-time patrons. The Exchange markets under its "Farm Fresh" brand. It was marketing about 25 percent of all of commercial eggs in the five counties served. The cooperative marketed about 85 percent of the eggs produced by farmers that it financed in 1957.

Livestock

The Exchange has always encouraged members to diversify farm operations by adding livestock and dairying. As in the case of broilers and commercial eggs, this effort is discussed under the headings of production and marketing.

Production

CCFE has long recognized the importance of coordinating improved production practices with livestock marketing. It has, therefore, emphasized a field-service program to help members better their production practices. Moreover, the feed milling, and general



A modern livestock auction is another of the many services provided farmer patrons of CCFE.

production supply operations of the association have been coordinated with the livestock production programs of members. Through its production supply department, for instance, the Exchange can provide its members who specialize in livestock production with feeds, equipment, building materials, sprays, and general farm supplies.

Starting in 1957, the Exchange entered into a few experimental agreements with farmers under which it has financed pig feeding on a contract basis. Altogether there have been only half a dozen or so such arrangements. Usually the farmers paid cash for the pigs which were located by the Exchange but the feed and supervision were provided by the Exchange. In one instance the Exchange also financed the cost of the pigs. A written experimental form of agreement has been developed. A charge of 6 percent is added to each invoice for feed and supplies which must be purchased through CCFE. Accounts are settled when hogs are marketed.

Marketing

The livestock marketing services of the association consisted basically of helping farmers sell or place cattle and hogs and providing slaughtering facilities. In view of the very limited market outlets for livestock in its territory, CCFE started a livestock auction in 1940. The initial investment in an auction market building was \$20,000 and the sales during the first year amounted to \$10,629. The level of recent operations is indicated by data in the following tabulation:

<u>Year ended</u> <u>June 30</u>	<u>Livestock</u> <u>sales</u>	<u>Gross</u> <u>income</u>
1957	\$1,430,692	\$58,481
1956	1,242,721	54,711
1955	1,270,262	58,771
1954	1,209,932	50,909

Gross income consists of commissions on sales, butchering and miscellaneous items such as gains on buying and selling livestock and the sale of hay produced from pasture land.

Prospects for further growth are shown by the fact that for the first 3 months of the fiscal year 1958 a further increase of 28 percent occurred. Auction facilities have been expanded as justified. A separate pig and hog sales barn was added in 1957 at a cost of \$20,000 and it is already being used to capacity. The association estimates that about one-half of all the cattle and hogs marketed in the five-county area are sold through its auction facilities. All livestock production financed by the Exchange is marketed by it.

Auctions are held every Monday. These handle sales of feeder pigs, market hogs, and various types of beef cattle, veal calves, dairy cows and heifers. The charge for the auction service is 4 percent of the sale price with a maximum of \$4 a head. The auction starts promptly at noon and continues until sales are completed.

The facilities are also used as a market during Monday, Tuesday, and Wednesday for top market hogs (180-240 pounds). These are brought in by farmers and bought by the Exchange, which immediately distributes them through local packers or other buyers.

In addition, CCFE holds numerous special sales of feeder calves, yearling cattle, and fat cattle. Through its facilities it also carries on sales demonstrations in cooperation with the Extension Service and livestock organizations. These educational programs seek to improve quality or types of livestock production.

The slaughter facilities constructed in 1948 represent an investment of about \$30,000 and are available to anyone who wishes to use them. This includes those who may purchase livestock at the auction or farmers who wish to have slaughtering done for their own needs. Slaughtering charges are:

Hogs - 1-1/2¢ a pound live weight.

Cattle up to 800 pounds - \$3 a head.

Over 800 pounds - 1/4¢ a pound plus \$3.

Dairy Products

Consideration of the dairy production and marketing practices of farmers in the Exchange's territory will help get a



In rounding out its integrated services to farmers, CCFE provides a feeder pig and a market hog sales facility.

better understanding of the degree of integration that has taken place in this farm enterprise.

Production

CCFE is contributing substantially to the production efforts of dairy farmers in its area. It is providing approximately 60 percent of the feed and dairy equipment used by dairy farmers. Within the last 2 years bulk milk cooling tanks have been an especially important dairy equipment item.

In addition, the association furnishes complete lines of fertilizer, seeds, and miscellaneous farm supplies to round out its production supply program for dairy producers. Through its livestock department it also provides consultant services on various management problems of dairy farmers.

Marketing

The livestock department of CCFE, through its auction market, furnishes a ready outlet for the cull dairy cattle and veal calves of dairy farmers in the area.

Substantially all dairy farmers in the area are members of Long Meadow Farms Cooperative, Inc., Durham, N. C., which provides wholesale and retail outlets for various types of processed and manufactured dairy products. The management and directors of CCFE helped organize, finance and establish this cooperative specifically to market the milk of CCFE members and other dairymen. The manager of CCFE is always on the board as public director of Long Meadow and on its executive committee. CCFE fieldmen and supervisors work with Long Meadow producers and other dairymen in the area of CCFE on all marketing as well as production problems.

Integration in Production Supplies

Because of the close relationship of the feed milling services of the association to the poultry, dairy, and livestock enterprises of its members, these services were discussed in sections of this report that considered these farm activities. For the same reason the hatchery was discussed under the broiler operations of the association. Moreover, the use made by farmers in poultry, dairy, and livestock enterprises of the other important production supply services of the association have been mentioned briefly (pp. 10, 13, 16, 17 and 19).

The association provides a number of additional important production supplies for all members. Since its farmer members grow some of the grain and seed distributed to other members by the association, these production supplies are considered on an enterprise

basis and discussed from the standpoint of marketing as well as production services. In the case of seeds, the strictly farm supply aspects of this service also are reviewed briefly. Fertilizer and other farm supplies are considered separately.

Feed Grain

It has long been the policy of CCFE to encourage the production of feed grain by farmer members to achieve greater agricultural diversification in its operating territory.

Production

The Exchange estimates that between 2,000 and 2,500 farmers use its facilities as a market outlet for the feed grain

they produce. Perhaps 500 of these farmers provide 50 percent of this grain now purchased by the cooperative. It also purchases some grain from operators of commercial elevators to help meet the requirements of feed manufacturing operations. The principal feed grain purchased from members and others is corn which accounts for about 90 percent of all purchases. Oats make up about 5 percent, and barley and milo each make up approximately 2.5 percent of the total.

CCFE has no financing or contracting arrangements with feed grain producers in its area. It does, however, provide a rather complete farm management service both from the standpoint of encouraging farmers to use proven seeds and to adopt approved production practices.

Marketing

Because feed grain does not have well established local outlets, the Exchange serves as a ready outlet for those grains produced. In reality feed grain production ties in with the production supply program of CCFE because the grains purchased are primarily used as ingredients for feed mill operations.

Depending upon general crop conditions, the proportion purchased outside the five-county area may range as high as one-half of total purchases. In actual practice CCFE handles about 75 percent of the grain sold by farmers in its five-county area. In 1956 and 1957 total grain purchases averaged about \$500,000 a year.



Feed manufacturing facilities at Durham, N. C., are a part of the integrated poultry, livestock, and dairy operations of members of Central Carolina Farmers Exchange.

It is the general policy of CCFE to pay local farmers the price feed grain brought in from other sections would cost delivered to its feed mill. No patronage refunds result from this operation but the entry of CCFE into the grain market has a beneficial and stabilizing effect on prices.

Seeds

In many respects the seed operations of the association are similar to those of grain. In accordance with association policy, farmers have been encouraged to produce high quality seed, adapted to local conditions.

Farmers have benefited in two ways by having their cooperative handle locally grown seeds. In the first place, an assured market outlet provides an additional source of income. Secondly, improved quality seeds of low weed count and good germination are made available to members for planting purposes.

Production

From 90 to 120 farmers produce pedigreed seeds, primarily wheat, oats, barley, soybeans, and lespedeza for the association. No formal contracts are maintained with growers but arrangements for seed certification are provided when desired.

Moreover, it is the general practice of the association to work closely with seed growers in providing certified and pedigreed seed from growers. CCFE furnishes information on college suggestions as to crop rotation, inspection, cleaning, and threshing.

It is the general practice to pay growers market prices plus 25 percent a bushel for seed grains. The association purchases clover seed at 2 cents a pound above farm prices, and sells hybrid corn for growers on commission basis.

In furthering its seed production efforts the association also provides trained men to make field inspection of seed before harvest. In its seed inspection program it makes no charges for small grains. Samples of soybeans and lespedeza seed are sent in to the State laboratory for analysis after cleaning. This service was started in 1940. CCFE has found that its farm management advice to seed producers encourages members to produce seed for sale.

As in the case of grain, the seed produced by members and purchased by the association largely enter into its production supply operations.

Marketing

The dollar volume, physical units, and the proportion handled in the area are indicated by the following tabulation:

Type of seed	Dollar volume	Physical volume	Proportion of total for 5-county area
		Bushe ls	Percent
Tobacco	\$15,000		60
Hybrid seed			
corn	14,000	2,000	55
Barley	13,500	10,000	80
Red clover	1,000	3,800	40
Oats	30,000	30,000	75
Rye	5,000	2,000	55
Soybeans	9,200	4,000	50
		CWT	
Lespedeza	17,500	1,800	70

In carrying on its seed marketing program, the association maintains two seed cleaning plants at Durham and Siler City. These represent an estimated investment of \$40,000.

Providing Members with Seed

The marketing operations just summarized are a part of the farm supply procurement operations of CCFE. What the association does, in effect, is to obtain some of its seed from members

and some from outside sources -- cooperatives and other firms.

Of the seeds obtained from sources other than local growers, a limited amount of lespedeza and hybrid seed corn comes from other cooperatives in the area. Remaining items are primarily tobacco, hybrid corn, lespedeza, and soybeans. These are obtained largely through regular commercial sources.

Southern States Cooperative, Inc., Richmond, Va., and Farmers Cooperative Exchange, Raleigh, N. C., supply most of the garden seeds. These associations contract with growers to furnish such seeds. CCFE estimates that it provides 40 percent of the seeds bought by farmers in the five-county area.

The previous tabulation showed how important various locally grown seeds are in the production supply operations of the association. Its overall seed operations cover a wide range of activity. While separate data are not available as to savings and volume, the total value of seeds retailed at service stores was as follows:

<u>Year</u>	<u>Volume</u>
1957	\$323,649
1956	328,330
1955	377,793
1954	396,862

Fertilizer

The association has handled fertilizer since its early years of operation. Information on the distribution of this item, showing wholesale volume and net savings since 1953, are as follows:

<u>Year</u>	<u>Wholesale volume</u>	<u>Net wholesale savings</u>
1957	\$489,398	¹ \$9,612
1956	502,646	¹ 8,515
1955	526,035	17,662
1954	503,051	17,768
1953	530,359	20,172

¹Includes patronage refunds.

The Exchange provides approximately 20 percent of the fertilizer used by farmers in the five-county area it serves. The relatively low proportion of this item supplied farmer members is in part due to the fact that much of the fertilizer used in the area is for tobacco. CCFE does not market this crop. A large number of tobacco auction warehouse operators handle fertilizer as a part of their integrated operations. This arrangement makes it somewhat difficult for the cooperative to increase its relative position in distributing this supply item.

General Production Supplies

The dollar volume and the estimated proportion of the more important general farm supplies provided farmers by CCFE in 1957 for the five-county area were as follows:

<u>Item</u>	<u>Volume</u>	<u>Percent of total in area</u>
Insecticides	\$150,000	40
Steel products (primarily wire and roofing)	200,000	40
Dairy equipment	75,000	60
Poultry equipment	100,000	40
Paint	30,000	5
Other items	614,000	10
Total	\$1,169,000	20

CCFE estimates that it provides farmers in the five-county area with approximately 20 percent of those miscellaneous farm supplies of the type it handles. Because it does not handle such items as petroleum, tires and batteries, and heavy farm machinery, the proportion of all general production supplies used by members in its area that are provided by CCFE ranges from 5 to 8 percent of the total used.

The Exchange reports the usual problems in handling these items;

namely: difficulty in interesting some managers of local service points in maintaining effective displays and promoting these supplies aggressively,

inadequate warehouse facilities, and inability, in some instances, to coordinate or integrate with other cooperatives to obtain cooperative suppliers.

Farm Business Services

Most of the general farm services provided by CCFE center around the operations of the association's freezer locker service. Other services relate primarily to bulk delivery of feed and trucking.

Freezer Locker

The association has maintained a freezer locker service since 1946. In 1957 approximately 500 members, 60 percent of them farmers, used this service. Receipts for all freezer locker services performed and net savings since 1953 were reported as follows:

Year	Receipts	Net savings
1957	\$75,220	\$5,976
1956	72,475	2,032
1955	65,835	2,920
1954	59,653	2,703
1953	54,212	5,069

In its freezer locker operation, CCFE primarily provides meat processing and chilling services for members. Its locker operations are more or less typical of those of cooperatives that have not gone into extensive processing and merchandising of frozen food products. Approximately 3,500 members used the meat processing services in 1957.

CCFE reported that there were two other freezer lockers (not cooperatives) in the five-county area. It estimates that it performs approximately two-thirds of the meat processing and chilling services and rents 50 percent of the locker space available in the area.

Other Services

In integrating its operations the association provides a number of additional services. For instance, it maintains a fleet of trucks used in distributing



Modern frozen food locker plant with facilities for meat processing and curing -- another service provided by the Central Carolina Farmers Exchange.

farm supplies to local service stores and to farmer members. These trucks handle substantially all items marketed for members, including the movement of broilers and eggs to retail market and are used in the delivery of many pro-

duction supplies to the coop's patrons.

During the latter part of 1956 and 1957 (a 16-month period) bulk delivery of feeds has increased until it accounted for 30 percent of the volume manufactured as of December 31, 1957.

Extent of Integration

The extent of integration achieved in various farm enterprises may be summarized as follows:

Broilers

Through contract arrangements with some 350 selected growers CCFE provides feed, poultry supplies, chicks, and supervision. In turn, the association processes all the broilers produced, transports them in its trucks, and sells them to jobbers in Eastern cities under its "Farm Fresh" brand. In other words, the cooperative has achieved an essentially complete integrated operation from production to jobber distributors. It markets about 50 percent of the broilers produced in its five-county operating area.

Commercial Eggs

Substantially the same type of integration exists for a limited number of commercial egg producers as prevails for broiler growers. The association finances these egg producers, furnishes them feed, supervision, and laying hens, and provides them an egg market with jobbers under the "Farm Fresh" brand.

The extent of integration, however, differs from that of the broiler producers in two respects: (1) No written agreement is required with noncontract producers, and (2) eggs are marketed for a large number of regular and part-time patrons who finance themselves and

are not obligated to use the association's feed, pullets, or poultry supplies. CCFE reported that its commercial egg operation accounted for about 25 percent of the production in its area in 1957.

Livestock

The association is developing experimental contracts with a limited number of hog producers. It also has provided an auction market for the sale of livestock. Except in those instances where purchasers use the curing facilities of the frozen food locker service and purchase livestock equipment and supplies, there is no further integration of the members' livestock enterprise. An



Processed poultry being loaded on refrigerated trucks ready for transportation to Eastern markets.

estimated 50 percent of all livestock in the five-county area served by CCFE is marketed through its facilities.

Dairy

CCFE has contributed to the production side of integration as it relates to the dairy enterprise of its farmer members. It provides approximately 60 percent of the feed and dairy equipment used by dairy producers. In addition such production supplies as fertilizer, seed, dairy equipment, spraying materials, are miscellaneous production items and also available to these farmers. Since the milk of its members largely is marketed through a sponsored dairy cooperative, Long Meadow Farms Cooperative, Inc., the Exchange does not provide marketing services for dairy products.

Feed Grain

It has been the policy of CCFE to encourage the production of feed grain by members in its operating area. Since it is in a position to buy grain for its feed mill, it serves as a ready and

dependable market outlet for corn, oats, barley, and milo. The cooperative handles about 75 percent of the grain produced by farmers in the area.

Seed

Because the association also encourages the use of high quality seed, provides a seed inspection program, and furnishes assistance on cultural practices, a well coordinated production and marketing program exists for those members who produce seed.

Production Supplies

The association has a well developed program for providing the necessary production supplies for farmers in its area. Of the supply items mentioned in the farm enterprise discussion, CCFE furnished 50 to 60 percent of all feeds used by farmers, 70 percent of the chicks, and 40 percent of the seed. Likewise, it provides 20 percent of the fertilizer, 40 percent of the insecticides, and 5 to 8 percent of all general production supplies used by farmers in its territory.

Further Possibilities for Integration

Integration is not an end in itself. The final test of the association's performance is its ability to provide integrated services for members so they realize greater net income than if they performed them as individuals, had them performed by others, or performed services not otherwise provided.

CCFE might wish to evaluate other areas of integration should it decide to further expand and coordinate its program or services to farmers. This report does not evaluate the opportunities for integration in these areas and makes no recommendations as to future actions.

Marketing

With respect to possibilities for further integration of marketing services, the following observations apply to the more important farm enterprises in area served by CCFE.

Livestock

Further significant integration in livestock marketing likely would call for the ownership of a meat packing plant. The experiences of many cooperatives in this area indicate that a number of



Interior view of livestock auction operations.

definite problems exist in the operation of such facilities. However, recent trends in the contract production of hogs together with demonstrations of successful slaughtering and processing of livestock by some cooperative organizations are factors to consider. There is need for critically examining and evaluating such efforts if service to livestock farmers is to be expanded. The association reports that it is expanding its meat slaughtering and processing operation and may eventually establish a meat packing plant.

Tobacco

There probably is a surplus of auction warehouse space for tobacco in the area served by CCFE. This may deter the association from providing an auction service. It would only be through such a program, however, that further integration of the tobacco enterprise would be possible.

Dairy Products

An established dairy cooperative provides a satisfactory outlet for milk producers in the five-county area. No further integration in this direction seems likely but it is desirable that the Exchange continue to coordinate its efforts with this association to make certain that it is providing the types of production supplies needed by dairy farmers.

Feed Grain and Specialty Crops

Reference has already been made to the extent to which CCFE serves as a market outlet for producers of feed grain and certain seeds. With further diversification of farm production in the area through growing of specialty crops, the association might want to consider whether or not it should provide market outlets for such crops. There appear limited opportunities in fruit and vegetable production.

Production Supplies

In the field of production supplies three items are examined: Fertilizer, petroleum products and automotive accessories, and general farm supplies.

Fertilizer

CCFE does not manufacture any of the fertilizer it provides members. Careful study would provide information on the desirability of the association, either on its own or in cooperation with other nearby regional cooperatives, integrating its fertilizer services by undertaking to manufacture this item. Census data for 1954 indicate that farmers in the five-county area purchased \$2.6 million of fertilizer that year. This is an average of \$194 a farm.

Petroleum Products and Automotive Accessories

CCFE has never handled petroleum products and automotive accessories. Yet these are increasingly important items in production supply needs of its farmers. For instance, the 1954 census reported that gasoline, petroleum fuel, and oil used by farmers in the area

served by the association amounted to \$1.5 million. This is an average of \$105 a farm and compares with a \$60 average in 1949. The average expenditure per farm for these items perhaps approaches \$150 at the present time.

General Farm Supplies

The Exchange obtains most of the general farm supplies it handles direct from larger manufacturers' commercial sources other than cooperatives. The association might want to examine the price, service, and quality offered by cooperative suppliers to see if it could more effectively provide members with such supply items as fencing, milking machines, water heaters, roofing, steel products, tires, batteries, and related items. Such arrangements also would enable CCFE to further integrate its farm supply operations.

Farm Business Services

A number of farm business services might be furnished for members if circumstances warrant. These include:

1. Additional transportation services.



Farmer members of the Exchange are served through eight service stores. Shown is store at Roxboro.

2. Further credit (possibly through the establishment of a credit corporation or a credit union, and increased coordination with production credit associations and the existing co-op credit system).

3. Various types of insurance.

Other types of farm services sometimes provided by cooperatives are: painting, spraying, farm machinery repair, farm management, and rental of or custom service for special types of farm machinery.

Implications of Integration

This report suggested previously that back of the forces contributing to the increase in integration processes by CCFE is the opportunity for its members to increase their net income. These members, therefore, are likely to use their cooperative as an instrument for integration only to the extent it will help them increase their net returns from farming. This means that CCFE will have to perform any job it undertakes at least as efficiently as, if not more efficiently than, other integrators.

In the long run it is evident that the further integration of operations by cooperatives will raise a number of questions that these associations will need to deal with if such efforts are to prove successful. This has been the experience of CCFE, and indications are that many of the same situations prevail with other cooperatives. Some of these problems or implications are:

Integration is a Farm Enterprise Development

The integration processes of CCFE reach back to the production activities of members and extend forward through the channels of marketing. How far they will go in either direction will be determined by such factors as:

1. Savings from feed manufacturing.
2. Economic conditions that result in losses to integrators, feed companies, processors, hatcheries.

3. Types of farming areas.

4. Advantages over established methods of farming.

One of the reasons for the present increased interest in integration is its impact on farm production practices. Irrespective of the provisions of the contract in what has come to be known as "contract farming," it generally provides for control of quality of production, time of production, and general cultural practices.

The implication of these provisions to CCFE and many other cooperatives is this -- providing just one service generally does not effectively meet member needs. In other words, if a cooperative is to serve as the farmer's vehicle for integration, it will need to possess sufficient flexibility to help members with production problems, farm supply needs, and marketing undertakings. This puts a premium upon bringing these three classes of services under the control of one association. Those that still perform only one service will need to carefully coordinate operations with other cooperatives or firms if farmers are to achieve the benefits of integration.

Financing the Grower

Although credit transactions were not studied in detail, there was no indication that CCFE was experiencing any serious difficulty in financing its broiler



Interior view of locker facilities.

and egg operations. The 1957 audit report of CCFE did, however, recommend that the association employ a credit manager. The soundness of such a suggestion seems evident in view of the fact that 63 percent of the association's \$9 million production supply sales were credit transactions and since the association has had accounts receivable of over \$900,000.

The experience of CCFE, as well as that of many other cooperatives, indicates that organizations increasingly will be called upon to make arrangements for financing supply purchases of growers under contract. In the case of CCFE, demands for such financing originally came from members. Later, these pressures were intensified because of financing services offered by competitors.

Cooperatives generally have resisted financing credit sales, including the type required in integration. The experience of CCFE, however, suggests that when proper safeguards are taken, the cooperative may finance growers producing broilers and eggs under

contract to the advantage of its patrons and without excessive risks.

There are several reasons why risks--at least short-time risks--appear limited.

First, since the members are required to market all broilers through its facilities, the association can control production and is in a position to deduct from the farmer's proceeds the amounts required to meet his obligation.

Second, even though the growers are owners of the chicks and buy the feed and supplies, the association's contract enables it to influence quantity and quality and this adds to the safety of financing.

Moreover, those growers selected are carefully screened for available facilities, resources, and experience before acceptance. Under such circumstances, the cooperative has definite advantages in granting credit--advantages that specialized lenders do not have when it comes to control and supervision.

Several methods of financing credit sales are open to cooperatives. Some have organized their own credit corporations which take over the credit function. In some cases this separate agency is a credit union. In either case the financing agency may obtain funds by rediscounting producers' notes with a Federal Intermediate Credit Bank or by borrowing from commercial banks. Under certain conditions it may also borrow from a bank for cooperatives. Another approach is to work out arrangements with a production credit association or a local bank for furnishing needed credit directly to patrons. Recent experimental arrangements between production credit associations and supply cooperatives in the St. Paul Farm Credit District suggest that this approach is one workable solution.

There will be instances, however, where, as in the case of CCFE, none of

the foregoing arrangements seems desirable. In that case if the cooperative has adequate member capital and supporting lines of credit with a bank for cooperatives or a commercial bank, it may decide to finance producers directly. This may be done in two ways. Chicks, feed and other supplies may be sold to the grower on credit, in the manner followed by CCFE. Such credits are carried by the cooperative as accounts receivable.

If the cooperative retains legal title to the chicks and the grower is more in the nature of a custodian, there is, strictly speaking, no credit extended by the cooperative. The advances by the cooperative for chicks, feed, and other supplies, represent expense outlays or investments rather than credits and, therefore, must be carried in that manner rather than as accounts receivable.

The experience of CCFE suggests that when a cooperative undertakes to finance the producer under contract and other credit sales, it should be recognized as a separate service to members and should be given as much skilled attention as any other enterprise. It should be organized as a separate department with a competent credit manager in charge. When organized in this manner and when production and marketing are supervised and controlled effectively under contracts, such a service can be provided members and farmers with perhaps even less risk than some other types of operations.

Risk Bearing

When a cooperative, such as the Exchange, undertakes to provide the additional services integration requires, it assumes the various production and marketing risks involved. If, as a representative of several thousand farmers,

it can do this more effectively than the individual member, farmers gain by using their association to do the job. Moreover, by providing increased services the cooperative can spread these risks over many economic activities rather than one.

However, any integrator assumes long-time as well as short-time risks. In addition to the credit risks already discussed, there are various risks traceable to such considerations as weather, changes in economic conditions, perishability, negligence, droughts, technical changes, and "Acts of God."

There are internal risks for cooperatives, too. Among others is an unwillingness of some farmers to make necessary financial contributions. The competency of management also is an important factor in determining the ability of a cooperative to hold risks to a minimum. This means ability to critically evaluate economic conditions and the technical changes within an industry so as to make the best use of facilities, financial resources, and manpower.

Management

As the Exchange gave increased emphasis to integration, it was obvious that its management faced new and enlarged responsibilities. Also, the manager has had the job of coordinating personnel, resources, and capital.

Moreover, the fact that cooperative management includes directors as well as the manager and his key employees brings another problem. For farmer-directors also need to develop better understanding of the nature of the wide range of problems that integration entails, the financial responsibilities that must be assumed, and the changes in management and membership relationships that are likely to develop.

Membership

Further, integration by the cooperative has had important implications from the standpoint of membership. In effect it has called for increased discipline on the part of members. Such discipline was necessary because integration involved the production by members of definite amounts of farm products of a given quality. Moreover, members have a greater need to understand the nature of the economic forces contributing to the development of integration and the financial responsibilities they have if their cooperative is to be successful.

Operations

Sound integration also will influence the operations of an association such as CCFE. Here a number of problems come to the forefront. They will have to be dealt with if cooperatives are to succeed in their integrating efforts. Three of these are selected for brief consideration here.

Patronage Refunds

CCFE, like many other cooperatives, follows the policy of returning patronage refunds to members on the basis of their purchase of production supplies only. It assumes in effect that its marketing operations are a service and that they should about pay their costs of performance. In actual practice, therefore, refunds to a large extent represent savings on feed mill operations together with smaller savings on such production supplies as fertilizer, seed, and miscellaneous items.

Some members, especially those that now use the co-op for market outlets and do not purchase feeds, may question the equity of such a practice unless they are well informed as to their association's operative policy. It is not the purpose of this report to pass judgment on the practice. However, this practice

may represent problems and CCFE as well as other cooperatives will need to develop plans to make sure that members understand why a certain practice is or is not followed.

Control of Production Practices

As the cooperative integrates its operations and assumes responsibilities for supplying marketing agencies with given amounts of products of specific grades, it is obvious that it must exercise more control over the production activities of its members. No longer can members expect their association to serve as an outlet for any kind and amount of product at any time. To realize greatest returns for patrons, only certain grades of a product should be produced or at least sold and these products must be available at certain specified times in given amounts. This calls for greater control of operations than generally has been exercised by cooperatives. As a rule, cooperatives have only provided limited marketing or production supply services for members.

Recognizing the Importance of Research

The expanded operations that resulted when CCFE further integrated its operations also called for a fuller understanding by management of the role that research can play in its operations. More and more operations will need to be geared to the latest findings of research.

This means research of a technical nature that will enable the association to produce and process the kind of products desired. It also means research on business efficiencies and general economic conditions if the association is to effectively provide production guidance, furnish needed farm supplies, and undertake the necessary marketing services that farmer-members require.



